

REMARKS

The present Office Action addresses and rejects claims 1-7, 10-19, 21-27, 29-33, and 35. Applicants respectfully request reconsideration and allowance based the remarks submitted herewith.

Rejections Pursuant to 35 U.S.C. § 103

Parker in view of Biederman

Claims 1, 6, 7, 10-12, 17-19, 21, 22-24, 26, 27, 29-33, and 35 are rejected pursuant to 35 U.S.C. § 103(a) as being obvious over U.S. Patent Publication No. 2004/0260284 of Parker (“Parker”) in view of U.S. Patent Publication No. 2004/0049190 of Biedermann et al. (“Biedermann”). Applicant respectfully disagrees with the Examiner’s rejection.

Claims 1 and 24

Independent claim 1 recites a U-shaped member having a distal cavity that movably seats the head of a bone-engaging member and having a proximal recess that is adapted to seat a spinal fixation element. An opening extends between the distal cavity and the proximal recess of the U-shaped receiver member. Independent claim 24 recites a method that includes implanting a plurality of anchoring devices into adjacent vertebrae in a spinal column, each anchoring device including a bone-engaging member that is fixedly attached to the vertebra and a U-shaped receiver member having a distal cavity that seats a head formed on the bone-engaging member. The U-shaped receiver member is freely movable relative to the bone-engaging member and the vertebra. The method also recites coupling a spinal fixation element to a proximal recess in the U-shaped receiver member on each anchoring device. The distal cavity and proximal recess of the U-shaped receiver member include an opening extending therebetween having a size that prevents passage of the spinal fixation element seated in the proximal recess.

The Examiner admits that “Parker fails to disclose an opening extending between the proximal recess (155) and distal cavity (112) where the opening is sized to prevent passage of a spinal fixation element.” The Examiner thus relies on Biedermann to remedy the deficiencies of Parker, alleging that Biedermann teaches “that a passageway (17) too small to allow the spinal rod to pass is provided to allow a screw driver to engage the bone engaging member.”

Biedermann discloses a central bore (17). However, the central bore (17) passes through a pressure element (13). The pressure element (13) and the receiving part (6) are separate components of the pedicle screw disclosed by Biedermann. The only component of Biedermann's pedicle screw that can form the claimed distal cavity that movably seats the head of the bone-engaging member is the first bore (7) in the receiving part (6). The receiving part (6), does not include the claimed proximal recess adapted to seat a spinal fixation element. This feature is only formed by the U-shaped recess (15) in the pressure element (13). *See Biedermann at Par. 0026-0027.* Thus, the proximal recess and the distal cavity of Biedermann are formed in separate components. Therefore, Biedermann does not disclose a U-shaped member having both a proximal recess that is adapted to seat a spinal fixation element, and a distal cavity that seats a head of a bone-engaging member as claimed. Accordingly, Biedermann does not remedy the deficiencies of Parker.

Accordingly, claims 1 and 24, as well as claims 6, 7, 10-11, 26, 27, and 29-31 which depend therefrom, distinguish over Parker and Biederman and represent allowable subject matter.

Claims 12 and 32

Independent claim 12 recites that proximal and distal portions of a cavity in the U-shaped receiver are separated by opposed protrusions. Likewise, independent claim 32 recites an opening defined by opposed protrusions between the proximal and distal seats of the U-shaped receiver member. As explained above, Biedermann does not teach an opening formed in the receiver between the proximal and distal portions. Biedermann likewise fails to teach any protrusions formed on the receiver. The only protrusions in Biedermann are on the pressure element 13, which cannot form the claimed U-shaped receiver.

Accordingly, claims 12 and 32, as well as claims 17-19, 21-23, 33, and 35 which depend therefrom, distinguish over Parker and Biederman and represent allowable subject matter.

Parker in view of Errico

Claims 1, 6, 7, 10-12, 17-19, 21, 22-24, 26, 27, 29-33, and 35 are also rejected pursuant to 35 U.S.C. § 103(a) as being obvious over U.S. Patent Publication No. 2004/0260284 of Parker ("Parker") in view of U.S. Patent No. 5,690,630 of Errico et al. ("Errico"). Applicant respectfully disagrees with the Examiner's rejection.

As discussed above, the Examiner admits that "Parker fails to disclose an opening extending between the proximal recess (155) and distal cavity (112) where the opening is sized to prevent passage of a spinal fixation element." The Examiner thus relies on Errico to remedy the deficiencies of Parker, alleging that Errico teaches "the use of a pre-assembled polyaxial screw system where a small bore (155) passing between the proximal recess and distal cavity is provided for driving the bone-engaging member." Like Biedermann, Errico does not remedy the deficiencies of Parker because Errico teaches that "the top surface 156 of the *locking collar* 150 has an opening 155." (Emphasis added). Errico at Col. 7, lines 8-9. The locking collar (150) is separate from the receiving member (200). Errico's receiver member does not include a recess for the rod (207) and a cavity (158) for the screw head (122). Both the opening (155) and the cavity (158) are part of the collar (150), not the receiving member (200). The collar (150) cannot form the claimed receiver member because it is not U-shaped.

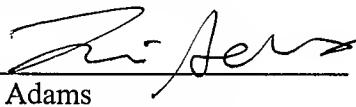
Accordingly, claims 1, 12, 24, and 32, as well as claims 6, 7, 10-11, 17-19, 21-23, 26, 27, 29-31, 33, and 35 which depend therefrom, distinguish over Parker and Errico and represent allowable subject matter.

Conclusion

Applicants submit that all claims are in condition for allowance, and allowance thereof is respectfully requested. Applicants' amendment of the claims does not constitute a concession that the claims are not allowable in their unamended form. The Examiner is encouraged to telephone the undersigned attorney for Applicants if such communication is deemed to expedite prosecution of this application.

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Respectfully submitted,

By 
Lisa Adams

Registration No.: 44,238

NUTTER MCCLENNEN & FISH LLP
World Trade Center West
155 Seaport Boulevard
Boston, Massachusetts 02210-2604
(617) 439-2550
(617) 310-9550 (Fax)
Attorney for Applicant